

CLAIM AMENDMENTS

1 1. (Currently amended) An apparatus ~~A device~~ for
2 detecting brain electrical potentials on a patient, with an
3 electrode device which can be applied in the forehead region of the
4 patient, wherein the electrode device is arranged on a forehead
5 support element which co-operates with a breathing mask device in
6 such a way that the an application position of the electrode device
7 is established in conjunction with the application position of the
8 breathing mask device, said electrode device including at least two
9 electrode elements adapted to bear on the forehead region of the
10 patient when said breathing mask device is on the face of the
11 patient, said breathing mask device having a seal engaging the face
12 of the patient around a nose and mouth region, a cavity surrounded
13 by said seal and a drawn-in region receiving the nose of the
14 patient and attached to the seal, the forehead support element
15 extending from the breathing mask device, the electrode elements
16 being coupled to a signal processing device for processing brain
17 signals.

2. (canceled)

2 3. (Currently amended) An apparatus ~~A device~~ as set forth
3 in claim 1 wherein the forehead support element is formed from
4 elastomer material.

1 4. (Currently amended) ~~A device~~ An apparatus as set forth
2 in claim 1 wherein the forehead support element is formed in one
3 piece with a mask base member of the breathing mask device.

1 5. (Currently amended) ~~A device~~ An apparatus as set forth in
2 claim 1 wherein a stiffening element is provided which stiffeningly
3 couples together the forehead support element and the breathing
4 mask device.

6. (Canceled).

1 7. (Currently amended) ~~A device~~ An apparatus as set forth in
2 claim 1 wherein the electrode device has three electrode elements.

1 8. (Currently amended) ~~A device~~ An apparatus as set forth in
2 claim 1 wherein said electrode elements are mounted on an
3 application surface to yield in a direction substantially
4 perpendicular to said application surface.

9. (Canceled)

1 10. (Currently amended) ~~A device~~ An apparatus as set
2 forth in claim [[9]] 1 wherein the signal processing device is
3 integrated into the forehead support element.

1 11. (Currently amended) ~~A device~~ An apparatus as set
2 forth in claim 9 wherein the signal processing device is provided
3 with a data transmission device for the cord-less transmission of
4 the processed signals to a data processing device.

1 12. (Currently amended) A breathing mask arrangement
2 for feeding a respiration gas to a patient under an increased
3 pressure, comprising:

4 ~~[[-]]~~ a mask member which engages over the nose region
5 of the patient,

6 ~~[[-]]~~ a sealing device for sealing off an inner region
7 of the mask with respect to the ambient atmosphere, and

8 ~~[[-]]~~ a forehead support element for supporting the mask
9 member in the forehead region of the patient, said forehead support
10 element having at least two electrodes adapted to press against
11 said forehead region for detecting ~~electrical and in particular~~
12 brain-electrical potentials.

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2 13. (Currently amended) ~~A device as set forth~~ The
3 arrangement defined in claim 12 wherein the forehead support
4 element is formed from an elastomer material.

1 14. (Currently amended) ~~A device as set forth~~ The
2 arrangement defined in claim 12 wherein the mask member is formed
3 from an elastomer material.

1 15. (Currently amended) ~~A device as set forth~~ The
2 arrangement defined in claim 12 wherein the forehead support
3 element and the mask member are integral.

1 16. (Currently amended) ~~A device as set forth~~ The
2 arrangement defined in claim 12 wherein the mask member and the
3 forehead support element are adapted to the individual contour of
4 the face of the patient by virtue of stiffening with a stiffening
5 device which extends into the forehead support element.

1 17. (Currently amended) ~~A device~~ An apparatus for
2 detecting electrical potentials in the forehead region of a
3 patient, in particular for determining sleep stages, comprising:
4 a breathing mask adapted to fit over a mouth and nose of
5 the patient; and
6 an electrode device having at least two electrode
7 elements directly engageable with the forehead region, a measuring

8 circuit arrangement for producing measurement data in accordance
9 with the electrical potentials detected by the electrode device,
10 the measuring circuit arrangement being integrated into a forehead
11 support element, and a signal transmission device for cord-less
12 transmission of the measurement data produced by the measuring
13 circuit arrangement.

1 18. (Currently amended) ~~A device as set forth~~ The
2 apparatus defined in claim 17 wherein the measuring circuit
3 arrangement has a data compression device for forwarding a
4 compressed data set to the signal transmission device.

1 19. (Currently amended) A device for detecting
2 electrical potentials in the forehead region of a patient, in
3 particular for determining sleep stages, comprising:
4 a breathing mask adapted to fit over a mouth and nose of
5 the patient; and

6 an electrode device fixed to the breathing mask and
7 having at least two electrode elements directly engagable with the
8 forehead region, a measuring circuit arrangement for producing
9 measurement data in accordance with the electrical potentials
10 detected by the electrode device, characterized in that the
11 measuring circuit arrangement is integrated into a forehead support
12 element, and there is provided a measurement data recording device

8 circuit arrangement for producing measurement data in accordance
9 with the electrical potentials detected by the electrode device,
10 the measuring circuit arrangement being integrated into a forehead
11 support element, and a signal transmission device for cord-less
12 transmission of the measurement data produced by the measuring
13 circuit arrangement.

1 18. (Currently amended) ~~A device as set forth~~ The
2 apparatus defined in claim 17 wherein the measuring circuit
3 arrangement has a data compression device for forwarding a
4 compressed data set to the signal transmission device.

1 19. (Currently amended) A device for detecting
2 electrical potentials in the forehead region of a patient, in
3 particular for determining sleep stages, comprising:

4 a breathing mask adapted to fit over a mouth and nose of
5 the patient; and

6 an electrode device fixed to the breathing mask and
7 having at least two electrode elements directly engagable with the
8 forehead region, a measuring circuit arrangement for producing
9 measurement data in accordance with the electrical potentials
10 detected by the electrode device, characterized in that the
11 measuring circuit arrangement is integrated into a forehead support
12 element, and there is provided a measurement data recording device

13 for recording the measurement data produced by the measuring
14 circuit arrangement.

1 20. (Currently amended) A device as set forth in claim
2 19 wherein the measurement data recording device is formed by an
3 approximately postage stamp-size memory card element which is
4 releasably fitted.

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